REMARKS

Claims 1 and 4-6 are pending in this application. By this Amendment, claim 1 is amended and claim 7 is cancelled. Support for the amendments to claim 1 can be found, for example, in the instant specification at page 8, lines 16 to 20 and Table 2, and in original claim 1. No new matter is added. In view of the foregoing amendments and following remarks, reconsideration and allowance are respectfully requested.

Entry of the amendments is proper under 37 CFR §1.116 since the amendments: (a) place the application in condition for allowance for the reasons discussed herein; (b) do not raise any new issue requiring further search and/or consideration as the amendments amplify issues previously discussed throughout prosecution; (c) do not present any additional claims without canceling a corresponding number of finally rejected claims; and (d) place the application in better form for appeal, should an appeal be necessary. The amendments are necessary and were not earlier presented because they are made in response to arguments raised in the final rejection. Entry of the amendments is thus respectfully requested.

Rejection Under 35 U.S.C. §103

The Office Action rejects claims 1 and 4-7 under 35 U.S.C. §103(a) over U.S. Patent No. 6,083,774 to Shiobara et al. ("Shiobara 774") in view of U.S. Patent No. 6,001,901 to Shiobara et al. ("Shiobara 901"). Claim 7 is cancelled, rendering the rejection moot as to that claim. As to the remaining claims, Applicants respectfully traverse the rejection.

Claim 1 recites "[a]n adhesive material ... comprising at least one curable resin and silica particles, wherein: the silica particles have a specific surface area S (m^2/g) satisfying ... $11 < S \leq 17$ ... the silica particles have a mean particle size D_1 (μm) ... satisfying ... $D_1 \leq 5$ ... the content of the silica particles is 35 to 60 vol% ..." (emphasis added). Shiobara 774 and Shiobara 901 do not teach or suggest such an adhesive material.

The Office Action asserts that Shiobara 774 discloses an adhesive composition including an inorganic filler having a specific surface area of 3.5 to 6.0 m^2/g in an amount of 100 to 550 parts by weight per 100 parts by weight of resin and curing agent. The Office Action concedes that Shiobara 774 fails to disclose an inorganic filler having a specific surface area of from 11 to 17 m^2/g, but asserts that it would have been obvious to incorporate the ultrafine silica having a specific surface area of 10 to 40 m^2/g disclosed in Shiobara 901 in the adhesive composition of Shiobara 774. Notwithstanding these assertions, Shiobara 774 and Shiobara 901 would not have rendered obvious the adhesive material of claim 1.

Claim 1 requires that the adhesive material include silica particles having a specific surface area between 11 and 17 m^2/g in an amount of 35 to 60 vol%. The Office Action concedes that Shiobara 774 fails to disclose silica particles having a specific surface area between 11 and 17 m^2/g. The Office Action correctly points out, however, that Shiobara 901 discloses that small particle fillers may be employed in an adhesive composition. *See, e.g.,* column 5, lines 21 to 41. Shiobara 901 identifies two types of particles that could potentially have specific surface areas falling within the range recited in claim 1: microparticulate fillers (a) having a mean particle size of 0.05 to 0.3 μm and a specific surface area of from 10 to 40 m^2/g, and fillers (b) having a mean particle size of 0.5 to 0.3 μm and a specific surface area of from 5 to 40 m^2/g. *See* column 5, lines 32 to 41. However, even if there were some motivation to employ the microparticulate fillers (a) and fillers (b) disclosed in Shiobara 901 having specific surface areas in the range recited in claim 1 in the adhesive composition of Shiobara 774 (Applicants submit that such motivation is not demonstrated in the Office Action), neither reference teaches or suggests employing such microparticulate fillers and/or fillers in the amount recited in claim 1 (35 to 60 vol%).

Shiobara 901 indicates that the microparticulate fillers (a) can be employed in an amount of 1 to 1.5 weight percent relative to the total weight of filler in the disclosed

adhesive composition, and the fillers (b) can be employed in an amount of 5 to 20 weight percent relative to the total weight of filler in the disclosed adhesive composition. *See* column 5, lines 37 to 41. That is, the maximum total amount of fillers taught by Shiobara 901 that could potentially fall within the specific surface area range recited in claim 1 is 21.5 weight percent relative to the total weight of filler in the disclosed adhesive composition. The maximum total amount of filler in the adhesive composition of Shiobara 901 is 90 weight percent relative to the total weight of the adhesive composition. *See* column 2, lines 19 to 22. Elementary arithmetic provides that the maximum total amount of fillers that could potentially fall within the specific surface area range recited in claim 1 that could be present in the disclosed adhesive composition is less than 20 weight percent. There is no indication in the Office Action or references that the fillers disclosed in Shiobara 901 potentially having a specific surface area between 11 and 17 m^2/g are present in an amount remotely approximating 35 to 60 vol%, as recited in claim 1. Moreover, there is no suggestion that the amount of fillers disclosed in Shiobara 901 potentially having a specific surface area between 11 and 17 m^2/g could or should be modified to meet the recitation of claim 1.

As both Shiobara 774 and Shiobara 901 fail to teach or suggest an adhesive material including silica particles having a specific surface area between 11 and 17 m^2/g in an amount of 35 to 60 vol%, the combination of references fails to teach or suggest each and every feature of claim 1.

Claim 1 would not have been rendered obvious by Shiobara 774 and Shiobara 901. Claims 4-6 depend from claim 1 and, thus, also would not have been rendered obvious by Shiobara 774 and Shiobara 901. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1 and 4-6 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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Attachment:
Notice of Appeal and Petition for Extension of Time

Date: March 28, 2006

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